

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO
10/521,209	01/13/2005	Stephen William Hunt	P-7599-US	9034
75	90 09/25/2006		EXAMINER	
Eitan Pearl			TRIEU, VAN THANH	
Latzer & Cohen Zedek Suite 1001			ART UNIT	PAPER NUMBER
10 Rockefeller Plaza			2612	
New York, NY 10020			DATE MAILED: 09/25/2006	

Please find below and/or attached an Office communication concerning this application or proceeding.

			SY		
	Application No.	Applicant(s)			
	10/521,209	HUNT, STEPHEN W	'ILLIAM		
Office Action Summary	Examiner	Art Unit			
	Van T. Trieu	2612			
The MAILING DATE of this communication ap Period for Reply	opears on the cover sheet	with the correspondence addre	988		
A SHORTENED STATUTORY PERIOD FOR REPI WHICHEVER IS LONGER, FROM THE MAILING [- Extensions of time may be available under the provisions of 37 CFR 1 after SIX (6) MONTHS from the mailing date of this communication If NO period for reply is specified above, the maximum statutory period - Failure to reply within the set or extended period for reply will, by statu Any reply received by the Office later than three months after the maili earned patent term adjustment. See 37 CFR 1.704(b).	DATE OF THIS COMMUNICATION OF THIS COMMUNICA	NICATION. a reply be timely filed ONTHS from the mailing date of this comm ABANDONED (35 U.S.C. § 133).			
Status					
1)⊠ Responsive to communication(s) filed on 13.	January 2005.				
<u> </u>	is action is non-final.				
3) Since this application is in condition for allows closed in accordance with the practice under	•	•	erits is		
Disposition of Claims					
4) Claim(s) 1-46 is/are pending in the application.					
4a) Of the above claim(s) is/are withdra	awn from consideration.				
5) Claim(s) is/are allowed.					
6) Claim(s) 1-10, 11-26, 28-43, 45 and 46 is/are	e rejectea.				
 7) Claim(s) 9,27 and 44 is/are objected to. 8) Claim(s) are subject to restriction and/ 	or election requirement				
Application Papers					
9) The specification is objected to by the Examin		a butha Evaminar			
10) The drawing(s) filed on is/are: a) ac Applicant may not request that any objection to the		•			
Replacement drawing sheet(s) including the corre	• , ,	` ·	1 121(d)		
11) The oath or declaration is objected to by the E	•	• • •			
Priority under 35 U.S.C. § 119					
12)⊠ Acknowledgment is made of a claim for foreig a)⊠ All b)□ Some * c)□ None of:	n priority under 35 U.S.C	. § 119(a)-(d) or (f).			
 ☐ Certified copies of the priority documer 	nts have been received.				
Certified copies of the priority documer	nts have been received in	Application No			
3. Copies of the certified copies of the pri	•	en received in this National Sta	age		
application from the International Burea	, , , , , , , , , , , , , , , , , , , ,				
* See the attached detailed Office action for a lis	it of the certified copies n	ot received.			
Attachment(s)					
1) Notice of References Cited (PTO-892)		v Summary (PTO-413) o(s)/Mail Date			
 Notice of Draftsperson's Patent Drawing Review (PTO-948) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 1/13/05. 		f Informal Patent Application			

Application/Control Number: 10/521,209 Page 2

Art Unit: 2612

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because the abstract filed on 13 January 2006 is a PCT abstract. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- Claims 1-8, 10-13, 15-26, 28, 30, 31 and 33-36 are rejected under 35
 U.S.C. 103(a) as being unpatentable over Clapper [US 7,084,765] in view of Goldstein et al [US 4,772,880]

Regarding claim 46, the claimed security system for a retail environment including a merchandise display area, at least one exit or entrance, and at least one shopping trolley (the retail facility 118 has a plurality of shopping carts 100, see Fig. 7, abstract, col. col. 5, lines 25-34); the system comprising a transmitter (the devices 120 interacts with RF tags that are positioned around the retail facility 118 to enable the position of the cart 100, see Figs. 8 and 9, col. 5, lines 43-48); and the security device comprising a receiver-only wireless receiver incorporating a processor, wherein the receiver is adapted to receive wireless signals from a transmitter, the transmitter being located in

the retail environment, and wherein the processor is adapted to analyze the received wireless signals so as to determine at least a location of the device within the retail environment past which the shopping trolley must travel before leaving through the exit or entrance (the shopping cart 100 with a PDA or processor-based system 10 receives the number emitted from position locating devices 26 or 120 for determining the position of the cart 100 in the retail facility 118, see Figs. 7-9, col. 5, lines 25-67 and col. 6, lines 1-2); but **Clapper** fails to disclose the security device connected to the trolley. However Clapper teaches that the PDA or processor-based system 10 is adjustably connected to a handle 108 of the shopping cart 100 for providing a customer with his/her current position/location in the retail facility 118 as well as other product information nearby. It also provides a greater interactivity between customers in retail facility 118 and the retail facility owner, operator or seller to get help, see Fig. 7, col. 1, lines 27-33, col. 2, lines 66-67, col. 3, lines 1-10 and col. col. 5, lines 25-35. Goldstein et al suggests that each of the shopping carts 14, 16 and 24 includes a wireless receiver 64 and a disabling mechanism 32 being controlled by a receiver amplitude detection circuit selected to provide a signal when the amplitude of the received signal falls below the threshold level provided by the transmitter 12 at the desired extreme range or arc 18. Then the receiver 64 provides continuous signal to lock the wheel 22 for disabling the shopping cart 16 and activating alarm buzzer 84, see Figs. 1-4, col. 2, lines 35-68, col. 3, lines 1-15 and col. 4, lines 5-18. Therefore, an artisan would substitute the wireless receiver with disabling mechanism of Goldstein et al for the PDA or processor-based system to the shopping cart of Clapper for providing both position information and antitheft of the

Art Unit: 2612

shopping carts in the retail facility since the disabling mechanism is easily adaptable to a great number of different shopping carts without modifications, Goldstein et al, col. 3, lines 46-56.

Regarding claim 2, all the claimed subject matters are discussed between Clapper and Goldstein et al in respect to claim 1 above, and including the processor is adapted to analyze the received wireless signals so as to determine at least a direction of travel of the device relative to the transmitter (the shopping cart 100 with a PDA or processorbased system 10 receives the number emitted from position locating devices 26 or 120 and identifier tags 124 for determining the direction of travel of the cart 100 in the retail facility 118, see Figs. 7-9, col. 5, lines 25-67 and col. 6, lines 29-32).

Regarding claim 3, Clapper fails to disclose the processor is configured to issue an alarm signal when a predetermined signal or sequence of mutually identifiable signals is received from one or more transmitters. However, Clapper teaches that the PD processor-based system 10 provides both audible and text messages exchanged between various customers with shopping cart 100 and PDA 10, and exchange between customers and owner or operator of the retail facility 118, see Figs. 1, 2, 7 and 8, col. 1, lines 27-33 and col. 4, lines 40-50. Goldstein et al suggests that the circuit board 62 has a receiver circuit 64 and a servo-mechanism 66 and wired to a disabling mechanism 32 to lock the wheel 22 and issue an alarm buzzer when the shopping cart 16 is out of range, see Figs. 1-4, col. 2, lines 58-68, col. 3, lines 1-68 and col. 4, lines 1-

18. Therefore, an artisan would substitute the alarm of **Goldstein et al** for the audio and/or text messages of **Clapper** to alerting the customer and retail facility owner or operator when the shopping cart is out of range of the location position or emitting devices, for preventing of loosing the shopping carts.

Regarding claim 4, the claimed security device further includes a transmitter, the transmitter being adapted to transmit a signal to a wheel locking device provided on the shopping trolley when the alarm signal is issued, is met by the combined security device between **Clapper** and **Goldstein et al** in respect to claims 1 and 3 above.

Regarding claim 5, the claimed transmitter is a low frequency wireless transmitter (the PDA processor-based system 10 includes wireless transceiver 32a or emitting devices 120 within the retail facility 118 such as the IEEE 802.11 standard protocol, see Figs. 1, 2 and 9, col. 2, lines 15-22).

Regarding claim 6, the claimed processor is hard- wired to a wheel locking device provided on the shopping trolley and wherein the processor is adapted to transmit a signal to the wheel locking device when the alarm signal is issued, is met by the combined security device between **Clapper** and **Goldstein et al** in respect to claims 1 and 3 above.

Regarding claim 7, the claimed alarm signal causes an audible, visual or other alarm device to be activated, is met by the combined security device between Clapper and Goldstein et al in respect to claims 1 and 3 above.

Regarding claim 8, Clapper fails to disclose the alarm device is configured to be activated in response to the alarm signal prior to activation of the wheel lock device, is met by the combined security device between Clapper and Goldstein et al in respect to claims 1 and 3 above, wherein Goldstein et al suggests that upon determined that a shopping cart 16 is out of range, the receiver 64 provides a signal to active a buzzer alarm 84 and a signal to actuate the disabling mechanism 32 to lock the cart wheel 22, see Figs. 1-4, col. 4, lines 5-34. Therefore, an artisan would recognize that the buzzer would be sound prior to the actuation of the disabling mechanism because the mechanical normally operate slower or after of the electronic audio/sound activation signal.

Regarding claim 10, the claimed processor is adapted to determine a direction of travel of the device past a given transmitter, is met by the combined security device between Clapper and Goldstein et al in respect to claim 2 above.

Regarding claim 12, the claimed retail environment includes at least one cheek out point located between the merchandise display area and the at least one exit or entrance, and wherein the choke point, is located outside the merchandise display area in a

region between the at least one cheek out point and the at least one exit or entrance, is met by the position location devices 26 or emitting devices 120 are disposed around the retail facility 118 that includes merchandise/product display racks 124, entry/exit and point of sale POS or check out point, see Fig. 9.

Regarding claim 13, the claimed retail environment includes a canteen or a toilet facility located outside the merchandise display area, and wherein a choke point is provided at a boundary between the merchandise display area and the canteen or toilet facility, which reads upon the retail facility 118 is required to have a toilet for use by customers and employees in the retail facility.

Regarding claim 15, the claimed at least one transmitter located at the choke point is configured to transmit wireless signals to the wireless receiver that do not cause an alarm signal to be issued by the processor but instead provide location or direction of travel information (the shopping cart 100 with a PDA or processor-based system 10 receives the number emitted from position locating devices 26 or 120 and identifier tags 124 for determining the direction of travel of the cart 100 in the retail facility 118, see Figs. 7-9, col. 5, lines 25-67 and col. 6, lines 29-32).

Regarding claim 16, the claimed the transmitter is provided with means to change characteristics of the transmitted signals in predetermined ways that are recognized by the processor (the appropriate number, identification number or information from the

emitting devices 120 and tags 124 being recognize by the PDA processor-based system 10, see Fig. 8, col. 4, lines 40-67).

Regarding claim 17, the claimed plurality of transmitters located in the retail environment are networked to a central computer (the plurality of position location devices 26 or emitting devices 120 and tags 124 are wireless communications with a local area network or intranet with the PDA processor-based system 10 and server 34, see Figs. 1, 3, 4 and 9, col. 2, lines 1-67, col. 3, lines 1-25).

Regarding claim 18, the claimed at least one hand-held remote control device adapted to issue wireless control signals to the security device of the transmitter, is met by the combined security device between **Clapper** and **Goldstein et al** in respect to claims 1 and 3 above, wherein the portable PDA 10, see Figs. 1, 2 and 4.

Regarding claim 19, the method claim limitations is met by the combined security device between **Clapper** and **Goldstein et al** in respect to claim 1 above.

Regarding claim 20, the method claim limitations is met by the combined security device between **Clapper** and **Goldstein et al** in respect to claim 2 above.

Regarding claim 21, the method claim limitations is met by the combined security device between **Clapper** and **Goldstein et al** in respect to claims 3 and 19 above.

Regarding claim 22, the method claim limitations is met by the combined security device between **Clapper** and **Goldstein et al** in respect to claims 4 and 21 above.

Regarding claim 23, the method claim limitations is met by the combined security device between **Clapper** and **Goldstein et al** in respect to claims 5 and 22 above.

Regarding claim 24, the method claim limitations is met by the combined security device between **Clapper** and **Goldstein et al** in respect to claims 6 and 21 above.

Regarding claim 25, the method claim limitations is met by the combined security device between **Clapper** and **Goldstein et al** in respect to claims 7 and 21 above.

Regarding claim 26, the method claim limitations is met by the combined security device between **Clapper** and **Goldstein et al** in respect to claims 8 and 25 above.

Regarding claim 28, the method claim limitations is met by the combined security device between **Clapper** and **Goldstein et al** in respect to claims 10 and 19 above.

Regarding claim 30, the method claim limitations is met by the combined security device between **Clapper** and **Goldstein et al** in respect to claims 12 and 19 above.

Regarding claim 31, the method claim limitations is met by the combined security device between **Clapper** and **Goldstein et al** in respect to claims 13 and 19 above.

Regarding claim 33, the method claim limitations is met by the combined security device between **Clapper** and **Goldstein et al** in respect to claims 15 and 19 above.

Regarding claim 34, the method claim limitations is met by the combined security device between **Clapper** and **Goldstein et al** in respect to claims 16 and 19 above.

Regarding claim 35, the method claim limitations is met by the combined security device between **Clapper** and **Goldstein et al** in respect to claims 17 and 19 above.

Regarding claim 36, the method claim limitations is met by the combined security device between **Clapper** and **Goldstein et al** in respect to claims 18 and 19 above.

3. Claims 11 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clapper and Goldstein et al and further in view of MacIntyre [US 5,283,550]

Regarding claim 11, Clapper fails to disclose the timing device configured to suppress or delay issuance of the alarm signal for a predetermined time. However according to the combined security device between Clapper and Goldstein et al in respect to claims 1 and 3 above, wherein Goldstein et al teaches that the receiver 64 provides a signal to activate the buzzer alarm 84 when the shopping cart 16 is out of range, see Figs. 1

and 4, col. 4, lines 5-34. MacIntyre suggests that a shopping cart receiver alarm system 10 for use in a grocery store 12 and parking lot 14. The shopping cart 20, 30 includes a wireless receiver 70 for receiving transmitted signal from a plurality of transmitters 16 within a predetermined area. The shopping cart 20, 30 also include a timing circuit 84 for delaying an audible alarm 62 for a predetermined period of time, see Figs. 1, 1 and 10-13, abstract, col. 4, lines 32-46, col. 5, lines 36-68 and col. 6, lines 1-4. Therefore, an artisan would implement the timing circuit of **MacIntyre** to the receiver circuit of Goldstein et al and Clapper for given time to a shopper or user to return the cart before activating the alarm sound, which minimizes of false alarm.

Regarding claim 29, the method claim limitation is met by the combined security device between Clapper and Goldstein et al and MacIntyre in respect to claims 11 and 21 above.

4. Claims 14 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clapper and Goldstein et al and further in view of French et al [US 6,975,205] Regarding claim 14, Clapper fails to disclose the transmitter includes a pair of coils or antennas each of the pair being adapted to transmit a mutually distinct signal so as to enable the processor to determine a direction of travel of the security device relative to the transmitter. However, Clapper teaches that the PDA processor-based system 10 receive signals from plurality of position location devices 26 or emitting devices 120 with its number for determining location and direction of the traveling shopping cart 100

within the retail facility 118, see Figs. 1 3, 4 and 9, col. 2, lines 66-67, col. 3, lines 1-10 and col. 5, lines 40-67. **French et al** suggests that a system and method for encouraging the return of a shopping cart to a cart return location comprising a two inductive loops/coils 102a and 102b mounted vertically on each pole 104. The coils are angled from each other approximately 30 degrees to allow the system to sense the direction of shopping cart travel, see Figs. 3, 6 and 7, col. 9, lines 63-67 and col. 10, lines 23-27. Therefore, an artisan would substitute the two coils of **French et al** for the plurality of position location devices or emitting devices of **Clapper** and **Goldstein et al** for reducing the number of devices in the retail facility while still providing shopping cart positions and directions.

Regarding claim 32, the method claim limitation is met by the combined security device between **Clapper** and **Goldstein et al** and **French et al** in respect to claims 14 and 19 above.

5. Claims 37-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Goldstein et al** [US 4,772,880].

Regarding claim 37, the claimed security device for a shopping trolley, the device comprising a receiver-only wireless receiver incorporating a processor, wherein the receiver is adapted to receive wireless signals from a transmitter (the shopping carts 14, 16 includes a wireless receiver 64 and a disabling mechanism 32 being controlled by a receiver amplitude detection circuit selected to provide a signal when the amplitude of

the received signal falls below the threshold level provided by the transmitter 12 at the desired extreme range or arc 18. Then the receiver 64 provides continuous signal to lock the wheel 22 for disabling the shopping cart 16 and activating alarm buzzer 84, see Figs. 1-4, col. 2, lines 35-68, col. 3, lines 1-15 and col. 4, lines 5-18); but Goldstein et al fails to disclose the processor is adapted to analyze the received wireless signals so as to determine at least a location of the device within a predetermined spatial area. Therefore, an artisan would recognize that the wireless receiver 64 of Goldstein et al is functionally equivalent to the claimed processor analyzes the received wireless signal so as to determined at least a location of the device, since the wireless receiver 64 is designed with a threshold circuit to determine whether the shopping carts 14 and/or 16 is inside or outside of the desired transmitter range as a circled bounded by the arc 18 for locking and disabling the shopping cart, see Figs. 1 and 4, col. 2, lines 35-50 and col. 4, lines 5-18.

Regarding claim 38, the claimed the processor is configured to issue an alarm signal when a predetermined signal or sequence of mutually identifiable signals is received from one or more transmitters (the alarm buzzer 84, see Fig. 4, col. 4, lines 14-18 and 41-46).

Regarding claim 39, the claimed the transmitter is adapted to transmit a signal to a wheel lock device provided on the shopping trolley when the alarm signal is issued (the wheel 22 is locked and the buzzer 84 provides alarm signal when the shopping cart 16

is out of range/boundary, see Figs. 1 and 4, col. 2, lines 46-68, col. 3, lines 1-15 and col. 4, lines 14-18).

Regarding claim 40, the claimed transmitter is a low frequency wireless transmitter, which reads upon a near range transmitter 12 to transmit continuously to the receivers 64 located within a pre-selected range, see Fig. 1, col. 2, lines 35-46.

Regarding claim 41, the claimed the processor is hardwired to a wheel locking device provided on the shopping trolley and wherein the processor is adapted to transmit a signal to the wheel locking device when the alarm signal is issued (the circuit board 62 has a receiver circuit 64 and a servo-mechanism 66 and wired to a disabling mechanism 32 to lock the wheel 22 and issue an alarm buzzer when the shopping cart 16 is out of range, see Figs. 1-4, col. 2, lines 58-68, col. 3, lines 1-68 and col. 4, lines 1-18).

Regarding claim 42, the claimed alarm signal causes an audible, visual or other alarm device to be activated (the buzzer alarm 84, see Fig. 4, col. 4, lines 41-46)

Regarding claim 43, Goldstein et al fails to disclose the alarm device configured to be activated in response to the alarm signal prior to activation of the wheel lock device. However, Goldstein et al suggests that upon determined that a shopping cart 16 is out of range, the receiver 64 provides a signal to active a buzzer alarm 84 and a signal to

Art Unit: 2612

actuate the disabling mechanism 32 to lock the cart wheel 22, see Figs. 1-4, col. 4, lines 5-34. Therefore, an artisan would recognize that the buzzer would be sound prior to the

Page 15

actuation of the disabling mechanism because the mechanical normally operate slower

or after of the electronic audio/sound activation signal.

6. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Goldstein et al in view of French et al [US 6,975,205]

Regarding claim 45, Goldstein et al fails to disclose the processor is adapted to

determine a direction of travel of the device passed a given transmitter. However,

Goldstein et al fails to disclose the processor is adapted to analyze the received

wireless signals so as to determine at least a location of the device within a

predetermined spatial area. French et al suggests that a system and method for

encouraging the return of a shopping cart to a cart return location comprising a two

inductive loops/coils 102a and 102b mounted vertically on each pole 104. The coils are

angled from each other approximately 30 degrees to allow the system to sense the

direction of shopping cart travel, see Figs. 3, 6 and 7, col. 9, lines 63-67 and col. 10,

lines 23-27. Therefore, an artisan would utilize the two coils of French et al with the

receiver processor of **Goldstein et al** for tracking the movement of shopping cart

positions and traveling directions in the shopping area.

7. Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Goldstein et al [US 4,772,880] in view of MacIntyre [US 5,283,550]

Regarding claim 46, **Goldstein et al** fails to disclose the timing device configured to suppress or delay issuance of the alarm signal for a predetermined time. However, **Goldstein et al** teaches that the receiver 64 provides a signal to activate the buzzer alarm 84 when the shopping cart 16 is out of range, see Figs. 1 and 4, col. 4, lines 5-34. **MacIntyre** suggests that a shopping cart receiver alarm system 10 for use in a grocery store 12 and parking lot 14. The shopping cart 20, 30 includes a wireless receiver 70 for receiving transmitted signal from a plurality of transmitters 16 within a predetermined area. The shopping cart 20, 30 also include a timing circuit 84 for delaying an audible alarm 62 for a predetermined period of time, see Figs. 1, 1 and 10-13, abstract, col. 4, lines 32-46, col. 5, lines 36-68 and col. 6, lines 1-4. Therefore, an artisan would implement the timing circuit of **MacIntyre** to the receiver circuit of **Goldstein et al** for given time to a shopper or user to return the cart before activating the alarm sound, which minimizes of false alarm.

Conclusion

- 8. Claims 9, 27 and 44 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
- 9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Art Unit: 2612

French et al discloses a security apparatus for shopping cart having a wireless receiver circuit connected to a locking device releasable locks a wheel braking member in the raised position and is released by a trigger device in response to a signal transmitted from a perimeter antenna extended around the perimeter of an area to be protected. [US 6,486,768], [US 6,125,972] and [US 5,881,846]

Harris discloses a security device attachable to a shopping cart comprising a wireless receiver operates in conjunction with one or more signal transmitters to activate, deactivate, lockup and unlock the locking element. [US 6,502,669]

Coakley et all discloses method and apparatus for deterring theft of a shopping cart to reduce unauthorized use and removal by preventing the free movement of one or more of the installed wheels. [US 5,576,691]

Scheffer discloses an apparatus and method for securing a shopping cart including a pair of spaced stops with an intermediate trough, and an LCD display located on one of the faces and a control system fro presenting advertising and other information on the display. [US 6,648,103]

10. Any inquiry concerning this communication or earlier communications from examiner should be directed to primary examiner **Van Trieu** whose telephone number is (571) 272-2972. The examiner can normally be reached on Mon-Fri from 7:00 AM to 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Mr. Mike Horabik** can be reached on (571) 272-3068.

Art Unit: 2612

Van Trieu Primary Examiner Date: 9/19/06

Page 18